

What is claimed is:

- 1           1. An electronic apparatus comprising:
  - 2           a function module having a multilayer wiring unit including
  - 3           a first signal wiring corresponding to an internal layer wiring,
  - 4           a first signal via, a first reference potential wiring, a first
  - 5           signal pad to which the first signal wiring is connected through
  - 6           the first signal via, a first reference potential pad that
  - 7           surrounds the periphery of the first signal pad and to which
  - 8           the first reference potential wiring is connected, and a first
  - 9           reference potential via connected to the first reference
  - 10          potential pad;
  - 11          a multilayer circuit board including a second signal wiring
  - 12          corresponding to an internal layer wiring, a second signal via,
  - 13          a second reference potential wiring, a second signal pad to which
  - 14          one end of the second signal wiring is connected through the
  - 15          second signal via, a second reference potential pad that
  - 16          surrounds the periphery of the second signal pad and to which
  - 17          one end of the second reference potential wiring is connected,
  - 18          a second reference potential via connected to the second
  - 19          reference potential pad, a third signal pad to which the other
  - 20          end of the second signal wiring is connected, and a third reference
  - 21          potential pad to which the other end of the second reference
  - 22          potential wiring is connected;
  - 23          a first conductor that connects the first signal pad and
  - 24          the second signal pad; and
  - 25          a second conductor that connects the first reference
  - 26          potential pad and the second reference potential pad,

27            wherein a central conductor of a coaxial cable is connected  
28   to the third signal pad, and an outer conductor of the coaxial  
29   cable is connected to the third reference potential pad.

1            2. An electronic apparatus according to claim 1, wherein  
2   the first conductor is surrounded by a plurality of the second  
3   conductors.

1            3. An electronic apparatus according to claim 1, wherein  
2   in at least one of the multilayer wiring unit and the multilayer  
3   circuit board, the signal via is surrounded by a plurality of  
4   the reference potential vias.

1            4. An electronic apparatus according to claim 1, wherein  
2   in at least one of the multilayer wiring unit and the multilayer  
3   circuit board, the signal wiring is nipped by the two reference  
4   potential wirings each wider than the signal wiring.

1            5. An electronic apparatus according to claim 1, wherein  
2   the multilayer wiring unit includes a fourth pad connected to  
3   the first reference potential pad, and the multilayer circuit  
4   board includes a fifth pad connected to the second reference  
5   potential pad and is provided with a third conductor that connects  
6   the fourth pad and the fifth pad.

1            6. An electronic apparatus according to claim 1, wherein  
2   one of the multilayer wiring unit and the multilayer circuit

3 board includes a fourth pad connected to the reference potential  
4 pad, and the other thereof includes a fifth pad unconnected to  
5 any ones and is provided with a third conductor that connects  
6 the fourth pad and the fifth pad.

1 7. An electronic apparatus according to claim 1, wherein  
2 the multilayer wiring unit includes a fourth pad unconnected  
3 to any ones, and the multilayer circuit board includes a fifth  
4 pad unconnected to any ones and is provided with a third conductor  
5 that connects the fourth pad and the fifth pad.

1 8. An electronic apparatus according to claim 1, further  
2 including a conductor case that is connected to the third  
3 reference potential pad and the outer conductor of the coaxial  
4 cable and thereby surrounds a connecting portion of the coaxial  
5 cable.

1 9. An electronic apparatus according to claim 1, wherein  
2 each conductor is any one of a bump, a ball and solder.

1 10. An electronic apparatus according to claim 1, wherein  
2 the function module is a sensor module having the multilayer  
3 wiring unit formed with a thin film.